

# Final Construction Plan (& Final Site Plan) Review Application

Handout #100 Revised 04/21/03

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## **What is the purpose of Final Construction Plan review?**

The purpose of final construction plan review is to ensure that final engineering design and construction drawings for the transportation, stormwater, utilities and erosion control aspects of a proposed development meet requirements of the preliminary plan review decision and standards adopted by Clark County. The review also ensures that facilities will be durable and maintainable with lasting quality.

## **What is the purpose of Final Site Plan review?**

The final site plan review process ensures that site plans, landscaping plans, and construction plans are consistent with the approved preliminary site plan review, conditions of approval, and other sections of the Clark County Code (CCC). Also, that documentation has been processed for dedicating right-of-way, establishing needed easements, covenants, and agreements, and guaranties have been provided for improvements and maintenance (e.g., bonds and escrow accounts). Finally, that the requirements of other governmental agencies have been satisfied prior to final site plan approval.

## **What development activities require application for final construction plan review?**

Final construction plans must be submitted for all public and private transportation and utility construction projects. Final construction plans must also be submitted for stormwater development activities or redevelopment that:

1. Results in 5,000 square feet or more of new impervious area within the rural area;
2. Results in 2,000 square feet or more of new impervious surface within an urban area;
3. The addition or replacement of more than 1,000 square feet of impervious surface for any of the development activities, or redevelopment listed in 13.29.305 (G) (1) and (2), building areas excluded; or.
4. The platting of single-family residential subdivisions in an urban area; or
5. If redevelopment results in 5,000 square feet or more of replaced impervious surface, then the provisions of Section 13.29.305 (C) apply;
6. Drainage projects; and,
7. All land-disturbing activities except those exempted in Section 13.29.210.

Within the Stormwater Ordinance, exemptions are granted for the following activities:

1. Commercial agricultural and agricultural activities implementing approved Farm Management Plans.
2. Forest practices regulated under Title 222 WAC, except for Class IV General Forest Practices that are conversions from timber and to other uses, are exempt from the provisions of the minimum requirements. All other new development is

subject to the minimum requirements.

3. Normal landscape maintenance activities and gardening.
4. Land disturbing activities of less than one (1) acre that do not result in additional or replaced impervious surface are exempt from the Section 13.29.305 (Water Quality) and Section 13.29.310 (Quantity Control).
5. Temporary portable school buildings are exempt from Section 13.29.305 (Water Quality) and Section 13.29.310 (Quantity Control) provided the buildings utilize roof downspout systems to infiltrate roof runoff. A final stormwater design that addresses disposal of stormwater shall be required.
6. Drainage projects that are not a part of a development activity or redevelopment under Section 13.29.305 (C), are exempt from Section 13.29.305 (Water Quality). The director may waive all or parts of Article V (Submittal Requirements), Section 13.29.340 (Maintenance and Ownership), and Section 13.29.350 (Bonding and insurance), if the project meets the other appropriate parts of this chapter.
7. Small residential projects (i.e., short plats and subdivision of 4 lots or less) that create less than two thousand (2,000) square feet of new impervious surface are exempt from Section 13.29.305 (Water Quality) and Section 13.29.310 (Quantity Control). Houses that utilize roof downspout systems to infiltrate roof runoff may be deducted from area calculations. A final stormwater plan is required if stormwater is conveyed off site. The submittal requirements (Article V) for small residential projects are modified as follows:  
Technical Information Report (Section 13.29.530(D)) shall not be required. However, sufficient information and data shall be provided with the final stormwater plan to allow the director to determine conformance with the applicable provisions of this chapter.
8. Government Agency Projects. Development activities and drainage projects undertaken by governmental agencies are exempt from Section 13.29.350 (Bonds and Insurance). 13.29

### **What is the construction plan review process?**

The construction plan review process begins with a "**Counter Complete**" review of your submittal package. This review ensures that **all items with a bold underlined space** listed within the construction plan review submittal requirements have been submitted before accepting your application (see attached submittal list). If the construction plan package is not counter complete, the plans will **not be accepted** and returned at the counter. Once the submittal is Counter Complete, the plans are routed to our engineering section for a "redline" review. The plans will also be reviewed for any planning-related requirements such as final site plan, final wetland review, required dedications, approval letters from other agencies, etc.

Once the initial "redlined" construction plan review is completed, the applicant's engineer will be contacted to pick up the plans at the Community Development Customer Service Center for correction. Also, a meeting will be scheduled between the applicant's engineer and county review engineer to review the red-line comments of the 1<sup>st</sup> review. Upon submittal of corrected plans and original redlined plans, a second or third "redline" review will be conducted as needed. If a fourth review is required, the applicant will be contacted to schedule a meeting with the Development Engineering Team Leader to resolve any outstanding issues.

Once construction plans (and final site plan, if applicable) are approved, the applicant will be notified to pick up the approved plans and approval letter, and then submit the final construction plan mylars. Upon plan pickup, the applicant will be required to pay any plan review fee adjustments and development inspection fees.

The next step is to submit the requested plan copies and any required legal documents per the approval letter. All associated project construction permits must also be approved and issued. Once these steps have been completed the Development Inspector, specified in the construction plan approval letter, must be contacted to schedule a pre-construction conference.

**Is there an opportunity for the applicant's engineer to meet with the County staff before the construction plans are submitted?**

Yes. The applicant may schedule a pre-design meeting prior to submitting construction plans. For larger or more complicated projects, a pre-design meeting is recommended. A meeting with staff may also be scheduled following the first construction plan (i.e., redline) review. To arrange for this meeting, contact the Engineering Office Assistant (Melissa Tracy @ 397-2375, Ext. 4258 or Cheryl Torneby Ext. 4559).

**Is there an opportunity to meet with staff to better understand the final site plan review process and ask question?**

Yes. You may contact the Planning Tech (Harriet Padmore ext. 4380) prior to submitting the final site plan to arrange a meeting to better understand the review process and ask questions. Your questions may also be addressed over the phone or via e-mail ([harriet.padmore@clark.wa.gov](mailto:harriet.padmore@clark.wa.gov)).

**What if modifications are needed after plans are submitted or during construction?**

Plan revisions proposed during construction plan review, or during actual construction which conflict with the preliminary plan review decision and conditions of approval, may require application for a Post Decision Review. A Post Decision Review will be processed as a Type I, II or III Review, depending upon the degree of proposed change (see Handout #70 Post Decision Review).

Plan revisions proposed during construction drawing review or during actual construction which do not conflict with conditions of development approval or the road standards, may be authorized by the Development Engineering Team Leader. Written consent between the Team Leader and the applicant is required. No change will be implemented until approval has been granted. The developer will be responsible for informing the construction contractor of all approved changes.

In special circumstances, the Team Leader may consider requests for variation from the County's construction specifications. It shall be the developer's responsibility to furnish supporting documentation to substantiate the requested variation.

**How are construction plans for off-site improvements processed?**

The application packet and all the copies are sent to the Engineering review team and they distribute copies to all effected County Departments. A staff engineer is assigned the project and he/she will coordinate the return of all the staff comments to the applicant. The comments typically take the form of red pencil annotations on the application documents. It is expected that the applicant will make corrections, changes or additions to resolve the comment. A meeting with the review engineer will be scheduled for the applicant and design engineers to make sure all annotations are understood.

A single copy of the corrected documents are then resubmitted together with all the previously checked documents for a second review. The review engineer will check to insure that all previous annotations have been satisfactorily resolved. If so, then original mylar plans will be requested to enable formal approval.

Applications for off-site construction plan review must be submitted separately from the original development application. A separate case number will be established and no fee is required. The title for the project should include "Off-Site Improvements Plan for \_\_\_\_\_ Subdivision/Site Plan.

**When are building permits issued?**Land Divisions:

For land partitions and subdivisions, building permits may be issued once the private and public improvements are completed, maintenance guarantees and as-builts are submitted and approved, and the final plat is recorded. In order for a model home/temporary sales office to be constructed, a building permit for one dwelling unit may be issued prior to completion of the public improvements.

Site Plans:

Building permits for commercial sites will be issued only after a pre-construction conference is held. Certificates of occupancy will not be issued until the private and public improvements are completed and accepted.

**Whose responsibility is it to meet the stormwater and erosion control ordinance?**

Meeting the requirements of the Stormwater and Erosion Control Ordinance is the joint responsibility of both the property owner, applicant and construction contractor. If the activity involves another permit, the applicant is also responsible for meeting the requirements of all county permits.

**When must sidewalks be constructed?**

Required sidewalks and access ways shall be installed in conjunction with either the construction of an adjacent road or the building structure. That portion of any required sidewalks or access ways adjacent to any lot shall be constructed prior to issuance of a certificate of occupancy for a building constructed on such lot.

If the Development Inspections Team Leader determines that construction is not feasible when a building is ready for occupancy, a construction bond or other security acceptable to the Team Leader shall be posted, guaranteeing the construction of required sidewalks and access ways. The amount of the construction bond, or other

security, shall be set by the Team Leader, based upon the estimated cost of installation at the time the sidewalk or access way is to be constructed.

**Can the landscaping installation be postponed due to seasonal conditions?**

The Development Services Manager or Development Engineering Team Leader may allow postponement of the landscaping (due to weather conditions) to the spring or fall planting season, with appropriate financial guarantees. In such cases, verification of the required landscape and the two-year maintenance period will commence following installation.

For public spaces, the County may accept a fee in lieu of improvements and complete the landscaping itself. The fee shall be based upon the approved landscape plan, and in an amount sufficient for installation of landscaping and maintenance for a two-year period, including administrative costs.

**How do I verify that the required landscape has been installed in accordance with my approved landscape plan?**

You must submit a copy of the approved landscape plan(s) with a certification (standard form provided by the County) signed and stamped by a landscape architect licensed in the state of Washington certifying that the landscape and irrigation (if any) have been installed in accordance with the attached plan(s) and verifying that any plant substitutions are comparable to the approved plantings and suitable for the site.

**If a wetland area is located on the site, what additional requirements are there?**

Any wetlands or wetland buffers on the site should have been addressed during the preliminary plan review. There may be specific requirements unique to the project in the Staff Report (Type I or II reviews) or Hearings Examiner's Final Order (Type III reviews), but the standard requirements are as follows:

Requirements for all sites with wetlands or buffers

If there are wetlands or buffers on the site, the requirements of CCC Section 13.36.250 apply even if no impacts are proposed. These requirements include:

- ❑ Demarcation of wetland and/or buffer boundaries established prior to, and maintained during construction; i.e., vegetation protection fence.
- ❑ Permanent physical demarcation of the boundaries in a manner approved by the Development Services Manager (i.e. fencing, hedgerows, berms etc.), and posting of approved signage on each lot or every 100-ft. of the boundary, whichever is less.
- ❑ Recording a conservation covenant with the County Auditor running with the land and requiring that wetlands and buffers remain in their natural state.
- ❑ Showing wetland and buffer boundaries on the face of the Final Plat or Site Plan and including a note referring to the separately recorded conservation covenant.

Rural Area Subdivision Waiver

The above requirements may be waived for subdivisions and short plats in the Rural Area if the applicant shows "development envelopes" on the face of the Final Plat that are clearly outside of all wetlands and buffers on the site. A note must be placed on the

final plat stating that no development shall occur outside the development envelopes without prior approval of the Development Services Manager.

#### Requirements for projects that require a wetland permit

When a wetland permit has been required or received preliminary approval, final approval is required prior to authorizing construction, Final Plat approval, and/or Final Site Plan Approval. The final wetland permit should be reviewed in conjunction with the final engineering plan review to ensure that approved wetland impacts, stormwater facilities within wetlands or buffers, and wetland mitigation plans are accurately represented in the construction plans approved by the County. A conservation covenant must be recorded and a financial guarantee for the construction of proposed mitigation must be secured before the final wetland permit can be approved. The details for this process are described in the (#35-E) Final Wetland Permit Application information handout available at the Customer Service counter.

#### **If a habitat area is located on the site, what additional requirements are there?**

There are no requirements to submit additional information with the construction plan review package for habitat improvements. However, the applicant must (separately) submit pictures of any final improvements to the Habitat Biologist, or call for a final inspection (David Howe @ 397-2375, Ext. 4598).

It is also the applicant's responsibility to ensure plant survival for habitat mitigation sites, if plant maintenance and monitoring was attached as a condition of approval in the final decision. Monitoring time frames vary depending on the severity of habitat alterations, but usually range between three and five years after groundbreaking activity. Additionally, a yearly report and photos should be sent to the County Habitat Biologist documenting mitigation successes or failures, including a contingency plan if plant mortality is significant.

#### **Note:**

This handout is not a substitute for county code. For more detailed information, please refer to Clark County Code 12.05 Transportation and 13.29 Stormwater and Erosion Control.

## **ENGINEERING SERVICES CONSTRUCTION (FINAL SITE) PLAN SUBMITTAL REQUIREMENTS**

The following checklist identifies information to be included with the Application. All items with a bold number and underlined space (i.e., **1. \_\_\_\_**), except 15 - 20, must be submitted before the application will be considered "**Counter Complete**." All submittals that are determined **not** "Counter Complete" will be **returned** to the applicant for correction. Those submittals determined to be Counter Complete will be routed to Development Engineering for review.

1. **\_\_\_\_ APPLICATION FEE** - The required fee for review shall accompany the application. The check is to be made payable to "Clark County Community Development."
2. **\_\_\_\_ COPIES OF SUBMITTALS AS FOLLOWS** - The submittal package shall include the following:
  - \_\_\_\_ 4 copies of all plans shall be submitted (to include items #3, #4 and #5 attached to each full sheet copy); **plus:**
  - \_\_\_\_ 1 additional copy of all plans if wetland or habitat permit required;
  - \_\_\_\_ 1 separate copy of the Signing and Striping Plan;
  - \_\_\_\_ 1 separate copy of the Landscaping Plan (if applicable);
  - \_\_\_\_ 1 reduced copy (8 1/2" X 11") of the Final Land Division or Final Site Plan; and,
  - \_\_\_\_ 1 copy of all reports and agreements.

### **8 1/2 x 11 format:**

Each of the following shall be attached to each copy of the construction plan packages.

3. **\_\_\_\_ COPY OF COMPLETED APPLICATION FORM** - The application form shall be completed and original signed in ink by the applicant.
4. **\_\_\_\_ COPY OF PRELIMINARY PLAN REVIEW DECISION** - A copy of the Preliminary Plan Review decision issued by staff (for Type I and II Reviews) or the Hearing Examiner (for Type III Reviews), and the proposed preliminary site plan (reduced to 11" X 17").

### **Full Sheet Format:**

5. **\_\_\_\_ COVER SHEET** - The cover sheet shall include the following:
  - ☐ Project name;
  - ☐ Applicant name, address, e-mail address, phone number and fax number;
  - ☐ Engineer name, address, e-mail address, phone number and fax number;
  - ☐ A list of the applicable stormwater and transportation codes by vested date;

- ☐ Preliminary Plan Review Case Number;
- ☐ Construction Plan Review Case number;
- ☐ Vicinity map;
- ☐ Approval block;
- ☐ Sheet index; and,
- ☐ Revision block.

**6. \_\_LAND DIVISION OR FINAL SITE PLAN** - A copy of the preliminary land division plan or final site plan, as applicable, that incorporates any conditions of approval of the preliminary plan review decision.

**7. \_\_GRADING PLAN**

- ☐ Entire legal lot included, drawn to scale, showing north arrow, property lines, easements, cuts and fills, footprint of existing structures, abutting streets (name, centerline, curb & sidewalk), driveway locations, and utilities (Note: For large lots, show only the areas to be graded and tied to a property line);
- ☐ Topography with existing and planned drainage features and structures;
- ☐ Location of any existing environmentally sensitive areas on the site, as indicated in the GIS materials;
- ☐ Existing surfacing and features on all portions of the site, such as asphalt, landscaping, lawn, gravel, stormwater swale, etc;
- ☐ Existing and proposed drainage conditions/facilities; and,
- ☐ Proposed finished grades and limits of grading per CCC13.25.

**8. \_\_FINAL TRANSPORTATION PLAN** - A copy of the transportation plan shall be submitted that includes the following (see Clark County Code, Chapter 12.05 Transportation Standards):

**General**

- ☐ Transportation Plan and Profile may be shown on the same sheet with profiles shown on the bottom half of the sheet;
- ☐ Sheets shall measure 22" to 24" in width by 34" to 36" in length;
- ☐ Borderlines of 2-1/2 " on the left side of the length of the sheet and 1/2" on the remaining sides;
- ☐ North arrow shall be shown on each plan view sheet of the plans and adjacent to any other drawing which is not oriented the same as other drawings on the sheet;
- ☐ Character size shall not be smaller than 0.08 of an inch high;
- ☐ All detail drawings shall be included in the drawings;
- ☐ A title block shall appear on each sheet of the plan set and shall be placed in the lower right-hand corner of the sheet, across the bottom edge of the sheet or across the right-hand edge of the sheet. The title block shall include the name of the project, the engineering firm, the sheet title and the owner if not shown on the first sheet; and,
- ☐ Construction specifications and notes shall be shown or referenced on the transportation plan or profile.



### **Transportation Plan**

- ❑ Vicinity map;
- ❑ Road alignment (scale not less than 1"=50'; where detail is required, 1"=100');
- ❑ Centerline stationing on all intersecting streets;
- ❑ Bearings on centerlines;
- ❑ Curve data on all horizontal curves;
- ❑ Right-of-way;
- ❑ Relevant topography;
- ❑ Existing and proposed utility locations;
- ❑ Street names in the development and adjoining the development;
- ❑ Typical roadway section showing placement of utilities;
- ❑ Existing and proposed drainage and water quality appurtenances;
- ❑ Sidewalk ramp locations.
- ❑ Floodplain and wetland boundaries (if applicable);
- ❑ Signalization, channelization, striping and signing; and
- ❑ Sufficient topographic data adjacent to the site to identify cut and fill limits from proposed improvements and further data as may be required by the County Engineer;

### **Profile**

- ❑ Relevant original ground lines using the same station as in the plan;
- ❑ Control elevations;
- ❑ Grade lines showing the proposed grades, vertical curves, bench marks, the vertical datum, and such further information as required by the County "Engineer";
- ❑ Arterial roads shall have minimum passing sight distance, as measured from a height of three and one half (3.5) feet to an object of four and one quarter (4.25) feet in height, in accordance with Table 12.05A.740(7). The effect of grades on the sight distances shall be governed by the criteria stated in the American Association of State Highway and Transportation Officials' (AASHTO) reference A Policy on Geometric Design of Rural Highways (1990).
- ❑ For new streets, the relevant original ground lines will show the ground line at centerline at a minimum and at the edges of the right-of-way if grade differences are significant (or alternatively, surveyed contour lines on the plan view);
- ❑ For existing streets, show the ground lines at the edge of pavement or face of curb, whichever is applicable;
- ❑ The profile lines for roads extending to the perimeter of any development shall be extended a minimum of three hundred (300) feet beyond the perimeter to include any change in contours which would affect the profile of the extension of the proposed road;
- ❑ If vertical control is available within one-half mile of the project, the applicant shall use the National Geodetic Vertical Datum of 1929 (1947 adjustment) as a vertical datum; and,
- ❑ If County horizontal control, based on the North American Datum of 1983 (1991 adjustment), is available within one-half mile of the project, the applicant shall make a tie to the grid bearing and coordinate the datum.

## **Transportation Design Specifications**

(May be included with the Final Transportation Plan)

Typical Roadway Section - The typical roadway section shall be shown (consistent with County standards) for each new roadway or improvement to an existing roadway. Any deviation from the "Standards Plans" for typical cross-section will require a modification pursuant to Section 12.05.660.

Required Details - The typical section shall show:

- ❑ Width of right-of-way;
- ❑ Width of roadway;
- ❑ Type and compacted depth of surfacing and paving materials;
- ❑ Other dimensions as may be necessary or required;
- ❑ Location and width of sidewalks and walkways; and,
- ❑ Location and with of curbs or curb and gutter, where applicable.

Surfacing - Depth Determination - The depth of surfacing and paving materials shall be determined from the standard plans. The depth to be used shall be determined from the functional use classification of the road to be improved and the AASHTO soil classification as shown in the Soil Survey of Clark County, Washington, published by the U.S. Department of Agriculture, Soil Conservation Service. In the case where the applicant wishes to submit an alternative surfacing and paving depth design, the applicant shall provide a design to support the proposed depths. The County Engineer shall establish and maintain criteria and methodologies for performing alternative surfacing and pavement depth design, including verified soil engineering characteristics and traffic loading for approving such alternative designs.

Alternate Surface Treatment - Alternate surface treatments may only be used upon approval of the County Engineer. The applicant shall supply the county engineer with specifications for materials and application rates as part of the approval.

Steeper Grades - Roads constructed in grades steeper than fifteen (15) percent shall be constructed with Portland cement concrete, with grooved surfacing. Rural roads are exempted from this requirement

Grades and Drainage - Access road drainage facilities shall be designed to meet the requirements of the County stormwater drainage and erosion control ordinances, and be sufficient to prevent water damage or impairment from normal rain flow or surface water. Erosion control shall be provided during construction to maintain the roadways so that mud and debris are minimized consistent with such ordinances.

Drainage details and street profile grades shall be shown on the construction plans. In the Urban and Urban Reserve areas, the centerline profile street grades shall not be less than one percent unless an integral curb and gutter section is

used in which case the minimum grade shall not be less than three-tenths percent. If any grading or filling to lots or other areas outside the streets is to be done which exceeds those amounts specified in Chapter 70, Uniform Building Code, an overall grading plan

#### Sidewalks

- ❑ Materials and construction of sidewalks and access ways shall conform to the standard plans for the type of adjacent road.
- ❑ Sidewalks shall be surfaced with Portland cement concrete.
- ❑ Access ways may be surfaced with Portland cement concrete or two (2) inches of asphaltic concrete pavement on four (4) inches of compacted crushed surfacing.

Note: For sidewalk requirements, see Section 12.05A.400(1). For sidewalks detailed specifications, see Drawings 34 through 38 in Appendix D.

## **9. \_\_SIGNING AND STRIPING PLAN**

#### General Requirements

The developer shall reimburse the County for the installation of necessary street name signs, warning signs and regulatory signs. The cost of all signs, barricades, and pavement markings will be determined on a time and materials basis.

#### Private Road Signs

Private road signs with street designations shall be provided by the developer at the intersection of private roads with private and public roads. Such signs shall meet the specifications shown on the typical drawing and, in the case of intersections with public roads, shall either be located within the public right-of-way or within a separate maintenance easement. Road signs shall be included in the private road maintenance agreement.

## **10. \_\_FINAL STORMWATER PLAN** - A copy of the stormwater and erosion control plan shall be submitted that includes the following (see Clark County Code, Chapter 13.29 Stormwater Control and Erosion Control):

- ❑ This plan shall also show the relationship of roads and utilities, and include the following:
  - ❑ Delineate sub-basins and show sub-basin acreage used in hydraulic/hydrologic calculations both on-site and off-site that contribute surface runoff.
  - ❑ Show directions and lengths of overland, pipe and channel flow;
  - ❑ Indicated outfall points and overflow routes for the one hundred (100) year storm; and,
  - ❑ Show storage volumes, pipe and weir invert elevations, and lengths of weir for stormwater control facilities.

## **11. \_\_TECHNICAL INFORMATION REPORT** - A Technical Information Report (TIR). The TIR shall be a comprehensive report, supplemental to the final engineering plans. The report shall contain all technical information and analysis

necessary to complete final water quality and quantity engineering plans based on sound engineering practices and appropriate geo-technical, hydrologic, hydraulic and water quality design. The TIR shall be stamped, signed and dated by the professional engineer(s), registered in the State of Washington, responsible for hydrologic, hydraulic, geo-technical, structural and general civil engineering design. The level of detail in the TIR is dependent on the complexity and size of the development activity. The TIR, which is part of the final stormwater plan, shall contain the following information:

- ❑ Table of Contents;
- ❑ List section headings and their respective page numbers;
- ❑ List of tables with page numbers;
- ❑ List of figures with page numbers;
- ❑ List of attachments, numbered;
- ❑ List of references;
- ❑ Site Location Map. The site location map (minimum USGS one to twenty-four thousand (1:24,000) Quadrangle Topographic Map) shall be as required for the preliminary stormwater plan, updated to reflect additional data or revisions to concepts established in preliminary stormwater plan;
- ❑ Soils Map. A soils map as required for the preliminary stormwater plan;
- ❑ Section A—Project Overview;
- ❑ Identify and discuss existing stormwater system functions;
- ❑ Identify and discuss site parameters influencing stormwater system design;
- ❑ Describe drainage to and from adjacent properties; and
- ❑ Generally describe proposed site construction, size of improvements, and proposed methods of mitigating stormwater runoff quantity and quality impacts.
- ❑ Section B—Approval Conditions Summary. List each preliminary approval condition related to stormwater control, wetlands, floodplains, and other water-related issues and explain how design addresses or conforms to each condition;
- ❑ Section D—Quantity Control Analysis and Design;
- ❑ Hydrologic analysis, existing and developed conditions;
- ❑ Identify criteria used in completing analyses and their sources;
- ❑ Identify and discuss any assumptions made in completing analyses;
- ❑ Tabulate acreage; imperviousness; curve number; length and grade of overland, pipe and channel flow; and other hydrologic parameters used in completing analyses;
- ❑ Complete detailed hydrologic analysis for existing and developed site conditions in accordance with the requirements of Section 13.29.210 (A)(7). Compute existing and developed peak flows and volumes for the design storms for all sub-basins. Refer to labeled points shown on the site location map and development plan;
- ❑ Include and reference all hydrologic and hydraulic computations in the technical appendix;
- ❑ Include all maps, exhibits, graphics and references used to determine existing and developed site hydrology;
- ❑ Quantity Control System Design;
- ❑ Reference conceptual design proposed in the preliminary stormwater plan;
- ❑ Identify revisions to conceptual design contained within the final engineering

- plans;
- ❑ Identify and discuss geo-technical or geological study or information used in completing analysis and design;
  - ❑ Identify criteria used in completing analyses and their sources;
  - ❑ Identify initial conditions including stream base flows, beginning water surface elevations, hydraulic or energy grade lines, initial groundwater elevation, beginning storage volumes, and other data or assumptions used to determine initial conditions in order to complete analyses, referencing sources of information;
  - ❑ Identify and discuss any assumptions used in completing analysis;
  - ❑ Complete detailed hydrologic/hydraulic analysis of all on-site stormwater control facilities impacted by the proposal, in accordance with the requirements of Section 13.29.310. Compute inflow and outflow hydrographs and peak flows and storage volumes. Reference conveyance and stormwater control facilities to labeled points shown on the development plan;
  - ❑ Tabulate existing and proposed peak flows and storage volumes;
  - ❑ Include and reference all hydrologic and hydraulic computations, equations, rating curves, stage/storage/discharge tables, graphs and any other aides necessary to clearly show methodology and results in the technical appendix;
  - ❑ Summarize results of quantity control system analyses and describe how the proposed design meets the requirements of this chapter; and
  - ❑ Include all maps, exhibits, graphics and references used to complete quantity control system analysis and design.
  - ❑ Quantity Control System Plan; and,
  - ❑ Obligation to comply with this chapter and does not prevent the county from recovering for defective work or violation of this chapter.

**12. PROPOSED EROSION CONTROL PLAN** - An erosion control plan consistent with CCC 13.29, shall be submitted to include:

**Small Parcel Developments**

- Any person or entity undertaking a small parcel development shall agree to implement a small parcel development erosion control plan, provided by the county, which shall address the small parcel development requirements in Section 13.29.400 of this chapter;
- Small parcel developments are not required to submit preliminary erosion control plans unless they are conducting land disturbing activities within an erosion hazard area; and,
- Applicants may find “A Builder’s Guide to Erosion Prevention & Sediment Control”, published by Clark County Home Builders Association, a useful reference for implementation.

**Large Parcel Developments**

Any person or entity undertaking a large parcel development shall prepare and implement a large parcel development erosion control plan which shall address the large parcel development requirements in Section 13.29.410 of this chapter.

### **Erosion Control Plan**

- ❑ An erosion control plan shall be submitted and approved prior to any person undertaking any land disturbing activity subject to this section. The erosion control plan shall be stamped by an engineer licensed in the State of Washington and shall be submitted with the final stormwater plan. Any revised plan shall be a refinement of the prior approved final erosion control plan clearly showing any changes or revisions.
- ❑ Content. The erosion control plan shall include a description of the following:
  - The BMPs that will be utilized to achieve compliance with the requirements of this chapter;
  - The timing of installation of BMPs and installation techniques.
  - The phasing of construction activities;
  - Protection of project improvements from erosion and sedimentation;
  - The construction of employee parking and equipment storage areas;
  - The effect of weather on the project and temporary stoppages;
  - An inspection log shall be provided to note any changes from the approved plan;
  - The location, sizes, and other design features of the proposed BMPs to be applied to the site;
  - A maintenance schedule for insuring the BMPs continue to function until the site is revegetated and stable;
  - A contingency plan discussing additional BMPs to be applied if proposed BMPs fail or are insufficient to control erosion;
  - Provisions for final stabilization prior to completion; and,
  - Submittals. Erosion control plans shall be submitted, approved and implemented for all large parcel development activities and for small parcel development conducting land disturbing activities within an erosion hazard area.

**13. FINAL LANDSCAPING PLAN** - A copy of the (revised, if applicable) preliminary landscape plan, including both public and private landscaped areas. This plan must reflect any changes in response to any conditions of approval.

**14. FINAL WETLAND AND/OR HABITAT MITIGATION PLAN** (If Applicable) - See Information Handout (#35-E) Final Wetland Permit Application.

**15. DEVELOPER AGREEMENTS (Not a Counter Complete Item)**

All original, signed developer agreements between the developer and county shall submitted, to include (if applicable):

- ❑ Developer Agreement
- ❑ Frontage Road agreement
- ❑ Future-Pay Agreement
- ❑ Latecomer Agreement
- ❑ Traffic Signal Agreement

**16. OTHER DOCUMENTS (Not a Counter Complete Item)**

- ❑ An engineer's estimate of the cost for surveying and engineering to complete the record drawing(s) is required prior to site plan approval.
- ❑ An escrow, letter of credit, cashier's check, or other acceptable form of guarantee is required from the applicant or applicant's representative for one hundred ten percent (110%) of the engineer's estimate identified in subsection (C)(1) above. Bonds are not acceptable instruments.
- ❑ Any easements, covenants or agreements that are necessary to permit construction must be included.
- ❑ The approved preliminary stormwater plan with an explanation of any differences between the design concepts included in the preliminary stormwater plan and the final engineering plans. A final stormwater plan which differs from the approved preliminary stormwater plan in a manner that, in the opinion of the director, raises material water quality or quantity control issues, shall, if subject to SEPA, require another SEPA determination, and a post decision review in accordance with Section 18.600.110.
- ❑ Final engineering plans that provide sufficient detail to allow construction of the stormwater facilities. These plans shall be stamped, signed and dated by the engineer (s) registered in the state of Washington, responsible for hydrologic, hydraulic, geo-technical, structural and general civil engineering design and by the project engineer responsible for the preparation of the final stormwater plan. Additionally, the final engineering plan shall show all utilities and that no conflicts exist between proposed utility lines.
- ❑ The offsite analysis required under Section 13.29.305 (B).
- ❑ A final development plan meeting the requirements of Section 13.29.550.

### **TO BE SUBMITTED UPON NOTICE OF FINAL ENGINEERING PLAN APPROVAL**

- 17. MYLARS** - Once the construction plans are verbally approved, the applicant will be contacted and asked to submit a set of construction plan mylars. The mylars must include all construction plan sheets and the final site plan mylar.
- 18. COPY OF APPROVED MYLARS** - Once the county has approved and signed the mylars, the applicant will be asked to pick up the mylars and then submit:
  - 6 blueline copies (to include the site plan, if applicable);
  - A separate copy of the Site Plan, if applicable; and,
  - 2 reduced copies (8 1/2"x11") of the stormwater infiltration detail (i.e., roof drain downspouts).

### **TO BE SUBMITTED AFTER FINAL ENGINEERING PLAN APPROVAL**

- 19. CONSTRUCTION GUARANTEE OPTION** - In lieu of completing any required public improvements prior to approval of a final plat, short plat or the issuance of building permits, the applicant shall post a bond, escrow of funds or other security acceptable to the Director, to include the following:

- ❑ 100% of the estimated transportation cost and 150% of the estimated stormwater construction costs, as determined by the Director/County Engineer, for the County to construct the improvements;
- ❑ Include the time period specified by the Director/County Engineer;
- ❑ Contain satisfactory surety and conditions, or other secure method as the Director/County Engineer may require; and,
- ❑ Indicate that the provisions of this guarantee will be enforced by the Planning Director and by appropriate legal and equitable remedies.

After determination by the director that all facilities are constructed in compliance with the approved plan, performing their intended functions in a satisfactory manner, and that maintenance bonding requirements of Section 13.29.340 are met, the performance bond or security shall be released. No building permits shall be issued until the stormwater facilities are completed and provisionally accepted.

## **20. RECORD ("AS-BUILT") DRAWINGS**

- ❑ Record drawings, which accurately represent the development site as constructed, shall be provided to Clark County prior to provisional acceptance and the issuance of building permits for single-family/duplex residential subdivisions. The issuance of occupancy permits for development activities are subject to final site plan approval, and within sixty (60) days following completion of construction of other development activities;
- ❑ The record drawings shall include location of culverts, alignment and grade changes, added and deleted items, location of utilities, water valves, sewer connections, the stormwater system, showing constructed dimensions and elevations. In addition, revisions to the final stormwater plan shall be submitted with the record drawings where changes which take place during construction significantly alter the calculations and assumptions contained in the plan;
- ❑ All plans submitted shall be reproducible and on mylar;
- ❑ The record drawing submittal shall be stamped, signed and dated by a licensed professional engineer, registered in the state of Washington; and,
- ❑ Record drawings are also requested to be submitted on computer disk in a format determined by the county, upon notice to do so.
- ❑ 1 blueline copy of record drawings must also be submitted.

## **21. MAINTENANCE WARRANTY**

### **Public Roads and Right-of-Way Improvements**

- ❑ Roads, drainage, landscaping, irrigation, and any other required right-of-way construction may be accepted for provisional maintenance by Clark County upon receipt of a workmanship and materials bond (or other secure method) in the amount of ten percent (10%) of the construction cost and the recommendation of the County Engineer;
- ❑ Final acceptance will not be made for two (2) years from the date of provisional acceptance and the applicant must repair any failure within the two (2) year period; and,



- ❑ The applicant may request inspection of the constructed facilities for release of the said workmanship and materials bond (or other secure method) at the end of the two (2) year provisional maintenance period.

### **Private Roads**

- ❑ The developer of a residential plat or short plat shall be responsible to ensure the maintenance of the private road for a period of two (2) years from the date of recording of the plat or short plat. Thereafter, the developer's maintenance responsibility will depend upon the number of lots under the developer's continuing ownership, as stated in the recorded maintenance agreement; and,
- ❑ A maintenance bond or other security, acceptable to the Director, shall be posted and maintained throughout the two (2) year initial maintenance period for a stormwater facility.

### **Private Road Maintenance Agreement**

The County will not maintain roadways, signs or drainage improvements on private roads. All private roads shall be maintained by the owners of the property served by them and kept in good repair at all times. A private maintenance covenant recorded with the County Auditor will be required for any private road serving more than three (3) lots. The covenant will set out the following:

- ❑ The terms and conditions of responsibility for maintenance;
- ❑ Maintenance methods;
- ❑ Standards;
- ❑ Distribution of expenses;
- ❑ Remedies for noncompliance with the terms of the agreement;
- ❑ Right of use easements; and,
- ❑ Other considerations.

The covenant shall be submitted to the County Engineer or his designee for approval prior to recording. The covenants, which may be in the form set forth in Appendix H, shall include the following terms:

- ❑ The covenant shall establish minimum annual assessments in an amount adequate to defray costs of ordinary maintenance and procedures for approval of additional needed assessments;
- ❑ The covenant shall include a periodic maintenance schedule;
- ❑ The covenants for maintenance shall be enforceable by any property owner served by the road;
- ❑ The means shall be established for assessing maintenance and repair costs equitably to property owners served by the private road;
- ❑ The covenants shall run with the land;
- ❑ "Maintenance" shall include, but not be limited to, road surfacing, shoulders, gates, signs, storm drainage facilities and vegetation control; and,
- ❑ Private Road Inspection. Private roads will be subject to the same inspection schedule as public roads.

### **Landscaping**

The applicant shall maintain landscaping and irrigation systems (if any) for a minimum of two years after provisional acceptance of the adjacent roadway. If ninety percent (90%) of all shrubs and one hundred percent (100%) of all trees do not survive, then the diseased, dying or dead plant material shall be replaced by the applicant during the two year maintenance period. Any plant materials replaced shall be maintained for an additional two years. For landscape installed within the public right-of-way, one hundred percent (100%) of all trees and shrubs must be living at the end of the two-year maintenance period. The applicant shall replace all the diseased, dying or dead plant material. Any plant materials replaced shall be maintained for an additional two years.

**22. FINAL LANDSCAPING VERIFICATION –** Prior to issuance of final plat approval or building permits for plats or an occupancy permit for site plans, the developer shall submit a copy of the approved landscape plan(s) with a certification (standard form provided by the County) signed and stamped by a landscape architect licensed in the state of Washington certifying that the landscape and irrigation (if any) have been installed in accordance with the attached approved plan(s) and verifying that any plant substitutions are comparable to the approved plantings and suitable for the site. Any substituted plants shall be no smaller than those shown on the approved plan(s) and shall have similar characteristics in terms of height, drought tolerance and suitability for screening.

**Staff Notes:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

This application was determined to be Counter Complete on: \_\_\_\_/\_\_\_\_/\_\_\_\_

Community Development Specialist: \_\_\_\_\_

**Department of Community Development**  
**1300 Franklin Street**  
**P.O. Box 9810**  
**Vancouver, WA 98666-9810**  
Phone: (360) 397-2375; Fax: (360) 397-2011  
**Web Page at: [www.clark.wa.gov](http://www.clark.wa.gov)**

## FINAL ENGINEERING PLAN (& FINAL SITE PLAN) REVIEW FEE SCHEDULE

### Final Drainage Project Review

Stormwater	\$701
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### Final Short Plat Review

Transportation (Paid with Preliminary Landuse Application)	\$2,088
Stormwater	\$1,044

### Final Site Plan Review

Planning	\$2,130
Transportation & Stormwater	
Less than 1.0 acres of impervious surface	\$1,755 + .061/s.f.
1.0 acre to 4.99 acres of impervious surface	\$5,264 + .020/s.f.
5.0 acres and over of impervious surface	\$8,773 + .0112/s.f.

### Final Subdivision Review

Transportation	\$2,281 + \$34/lot
Stormwater	\$604 + \$78/lot

### Final Wetland Review

Less than 1 acre	\$595
1 acres or more	\$1,218

TOTAL	\$ _____
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**Note: Development Inspection fees shall be paid upon submittal of copies of approved plans prior to pre-construction conference.**



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# ENGINEERING SERVICES

## For Final Construction, Site Plan, Grading and Floodplain Reviews

# Application Form

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Form DS3100 Revised 2/12/01

<b>PROJECT NAME:</b>		
<b>PRELIMINARY PLAN REVIEW CASE NUMBER: PLD-</b> _____ <b>or PSR-</b> _____		
<b>DESCRIPTION OF PROPOSAL:</b>		
<b>ENGINEER NAME:</b>	Address:	
E-mail Address:	Phone and Fax Numbers:	
<b>PROPERTY OWNER NAME</b> (list multiple owners on a separate sheet):	Address:	
E-mail Address:	Phone and Fax:	
<b>APPLICANT NAME</b> (if different than Engineer):	Address:	
E-mail Address:	Phone and Fax:	
<b>PROJECT INFORMATION:</b> Site Address:	Serial #'s of Parcels:	
Township:	Range:	¼ of Section:
Proposed Additional Impervious Surface (Square Feet):	Proposed Number of Lots:	

### AUTHORIZATION

The undersigned hereby certifies that this application has been made with the consent of the lawful property owner(s) and that all information submitted with this application is complete and correct. False statements, errors, and/or omissions may be sufficient cause for denial of the request. This application gives consent to the county to enter the properties listed above.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

<b>CASE NUMBER (Assigned at Customer Service Center): ENG-</b>
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proud past, promising future

DATE OF SUBMITTAL: \_\_\_\_\_

## CERTIFICATION OF LANDSCAPE INSTALLATION

In order to ensure that the landscape has been installed in conformance with the approved landscape plan(s) CCC 12.05A.770 (9), CCC 17.301.100 (J), and CCC 18.402A.050 (H) require that the applicant to submit a copy of the approved landscape plan(s) with a certification signed and stamped by a landscape architect licensed in the state of Washington certifying that the landscape and irrigation (if any) have been installed in accordance with the attached approved plan(s) and verifying that any plant substitutions are comparable to the approved plantings and suitable for the site. Any substituted plants shall be no smaller than those shown on the approved plan(s) and shall have similar characteristics in terms of height, drought tolerance and suitability for screening. **Verification of landscape installation must be submitted prior to approval of a final plat or issuance of an occupancy permit.**

PROJECT NAME:	_____	FLD/FSR CASE #:	_____
DEVELOPER:	_____	PHONE:	_____
LANDSCAPE CONTRACTOR:	_____	PHONE:	_____
LANDSCAPE ARCHITECT:	_____	PHONE:	_____

I, the undersigned landscape architect licensed in the state of Washington, hereby certify that the landscape on the subject site has been installed in accordance with the attached approved plans with \_\_\_\_\_[*number of substitutions*] plant substitutions. I further certify that all of the plant substitutions are listed below and that these substituted plants are comparable to the approved plantings, suitable for the site, are be no smaller than those shown on the approved plan(s) and have similar characteristics in terms of height, drought tolerance and suitability for screening.

Approved Plantings		Plan Substitution	
Name	Size	Name	Size
1.			
2.			
3.			

\* *Attach additional sheets as needed to list all plant substitutions.*

Irrigation    *was*    *was not*    [*circle one*] required by the approved landscape plan. If irrigation was required, I further certify that the irrigation system was installed pursuant to the landscape plan and has been tested and was properly functioning on \_\_\_\_\_ [*date irrigation system was tested*].

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Stamp*

☐ **Attach approved landscape plan(s)**